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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/023,259	02/13/1998	WALLACE A. RITCHIE	101102-0002	6726

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EXAMINER

HAN, QI

ART UNIT PAPER NUMBER

2654

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/023,259

Applicant(s)

RITCHIE ET AL.

Examiner

Qi Han

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-13 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-13 and 17-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

#### ***Response to Amendment***

3. This communication is responsive to the applicant's amendment 08/01/2005. The Applicant(s) amended claims 1, 11, 13 and 17, and cancelled claims 14-16 (see amendment, pages 2-6). In addition, the Office's record shows that the petition for revival under 37 CFR 1.137(b) is granted on 06/04/2004, and the applicant filed the RCE examination request on 01/12/2001.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-4, 6-13 and 17-21 have been considered but are moot in view of the new ground(s) of rejection, since the amended independent claims change the scope of the claims (see detail below).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation “**the** display of component candidates” and “**the** order for the display of the next drawn candidate”. There are insufficient antecedent basis for these limitations in the claim.

***Claim Rejections - 35 USC § 103***

6. Claims 1, 6-8, 11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakritz et al. (US 5,586,198) hereinafter referenced as Lakritz, in view of Wang et al. (US 5,926, 566) hereinafter referenced as Wang.

As per **claim 1**, Lakritz discloses method and apparatus for identifying characters in ideographic alphabet (title), comprising:

“selecting information from the group consisting of a stroke, a component and a character” (col. 5, line 61 to col. 6, line 18, ‘selected radical (component)’; col. 7, lines 1-11 and Fig. 5, shows ‘stroke’, ‘radical’ and ‘character’ in groups; col. 8, lines 1-15);

“storage of data related to the properties of Chinese characters and compounds” and “storage comprises data related to component parts of a Chinese character” (col. 4, lines 26-33,

Art Unit: 2654

‘Chinese alphabet’, ‘ideographic descriptions in maintained (stored) in a database...’), “said data selected from the group consisting of (1) the identification [and order of strokes used to draw said character], said strokes being in accordance with a selected classification scheme”, (col. 6, lines 1-17, ‘as the user drags (select) additional radicals to the canvas, constructing a more specific or complete form of the desired character, the number of matches shown in the selection window decreases’, ‘identification of the desired character’), “(3) the orthographic components of said character [in drawing order]” (col. 6, line 67 and Fig.3, ‘radicals (interpreted as orthographic components)’), “and (4) indicators of said character’s membership within various subsets of Chinese characters” (col. 7, lines 1-13 and Figs. 3 and 5, ‘indicated by numeric designator (indicator)’);

“means for process of said input information into internal codes for said Chinese characters, said process means including a plurality of Chinese character encoding processes based on said stored data”, (col., 6, lines 51-65, ‘graphical user interface’, ‘mouse (input means)’, ‘ideographic description database’); and

“means for display providing indication of correspondence between elements of said means for input and said display; wherein further character selection information is suggested in response to said input” (col., 6, lines 20-45, ‘kanji radicals’, ‘resulting in the display of a corresponding selection window 14 (including suggested selection information)’, ‘indicated by numeric designator 17’, ‘after additional radicals have been dragged... narrow the number of matches displayed in the selection window’, which read on further character selection information is suggested).

But, Lakritz does not expressly disclose “order of strokes used to draw said character” and using the components of said character “in drawing order”. However, Lakritz teaches that using ‘sequence (order) of strokes’ for ideographic characters’ is well known feature (col. 3, lines 27-35), which also suggests that the system has capability of using the component in drawing order because the component, such as radical, inherently uses the same drawing order as that of strokes for the characters. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine variety of teachings of Lakritz by specifically providing using sequence (order) of strokes (and component drawing order), for the purpose of better identifying the ideograph (character) (Lakritz: col. 3, lines 27-34).

Further, Lakritz does not expressly disclose using “(2) the frequency of occurrence of said character as the first character of a word with respect to an operator's language”. However, the feature is well known in the art as evidenced by Wang who teaches increment ideographic character input method (title), comprising providing hypotheses according to ‘the frequency of occurrence of the character’ (col. 23, line 6 to col. 24, line 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lakritz by specifically providing hypotheses based on the frequency of occurrence of the character, as taught by Wang, for the purpose of offering additional criteria used for ordering hypotheses list (Wang: col. 23, lines 6-7).

As per **claim 6** (depending on claim 1), the rejection is based on the same reason described for claim 1, because the rejection for claim 1 covers the same or similar limitation(s) of claim 6.

As per **claim 7** (depending on claim 1), the rejection is based on the same reason described for claim 1, because the rejection for claim 1 covers the same or similar limitation(s) of claim 1, wherein the radical in the cited reference(s) is reasonably interpreted as the orthographic component in the claim.

As per **claim 8** (depending on claim 7), Lakritz in view of Wang further discloses “a component comprised of fundamental strokes and a component comprised of a plurality of subcomponents” (Lakritz: Figs. 2-3, blocks 10, 12).

As per **claim 11**, it recites method for inputting Chinese character. The rejection is based on the same reason described for claim 1, because the claim recites the same or similar limitation(s) as claim 1.

As per **claim 21** (depending on claim 13), the rejection is based on the same reason described for claim 6, because the claim recites the same or similar limitation(s) as claim 6.

7. Claims 2, 12-13 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakritz in view of Wang as applied to claim 1, and further in view of Freeman (US 5,649,223).

As per **claim 2** (depending on claim 1), Lakritz in view of Wang does not expressly disclose “said means for input is selected from the group consisting of a keyboard and a touchscreen”. However, the feature is well known in the art as evidenced by Freeman who discloses word based text producing system (title), comprising ‘keyboard 11’ and ‘non-keyboard apparatus such as ... a touch sensitive screen’ for the stroke input system (col. 7, lines 15-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

Art Unit: 2654

was made to modify Lakritz in view of Wang by providing keyboard and non-keyboard apparatus such as a touch sensitive screen for input, as taught by Freeman, for the purpose of enabling user to type easier and faster, or enabling rapid and easy input of text by persons without keyboard skills (Freeman: col. 3, lines 43-52).

As per **claim 12** (depending on claim 1), Lakritz in view of Wang does not expressly disclose “selection of said non word associated character automatically appends a word separator”. However, the feature is well known in the art as evidenced by Freeman who further discloses ‘selected words... are outputted by input actions which may append 'Space' or other punctuation endings’ (abstract and col. 5, lines 6-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lakritz in view of Wang by providing selection of non word such as space or punctuation as separator, as taught by Freeman, for the purpose of enabling user to type easier and faster, or enabling rapid and easy input of text by persons without keyboard skills (Freeman: col. 3, lines 43-52).

As per **claim 13** (depending on claim 11), Lakritz in view of Wang and Freeman further discloses “selecting information from the group consisting of a stroke, a component and a character” (Lakritz: Figs. 2-3; Freeman: col. 16, lines 60-62, ‘strokes, radicals... ideographic character’).

As per **claim 17** (depending on claim 13), Lakritz in view of Wang and Freeman further discloses that “providing a component that is orthographic” (Lakritz: Figs. 2-3 and col. 6, line 67, ‘radicals (interpreted as orthographic components)’).

As per **claim 18** (depending on claim 13), the rejection is based on the same reason described for claim 8, because the claim recites the same or similar limitation(s) as claim 8.



8. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakritz in view of Wang and Freeman as applied to claim 2, and further in view of well known prior art (MPEP 2144.03).

As per **claim 3** (depending on claim 2), Lakritz in view of Wang and Freeman further discloses “a virtual keyboard comprising a representation of keys, each said key representation assigned to selection of a stroke, a component or a character” and “a special function key (Freeman: col. 7, line 20, ‘virtual keyboard (includes function keys)’; col. 2, lines 37-38, ‘display functions responsive to function key operation’; col. 16, lines 53-62, ‘Chinese’ ‘other non-alphabetic languages’, ‘strokes, radicals... ideographic character’). But, Lakritz in view of Wang and Freeman does not expressly disclose “a special function key selected from the group consisting of **a more key and a wild card key**”. However, an official notice is taken that the feature or the equivalent functionality of using a more key and a wild card key for input is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify Lakritz in view of Wang and Freeman by specifically providing the feature or the equivalent functionality of using a more key and a wild card key for input, for the purpose (motivation) of enabling user to type easier and faster, or enabling rapid and easy input of text by persons without keyboard skills (Freeman: col. 3, lines 43-52).

As per **claim 4** (depending on claim 2), the rejection is based on the same reason described for claim 3, because the claim recites the same or similar limitation(s) as claim 3.

Art Unit: 2654

9. Claims 9-10 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakritz in view of Wang as applied to claims 1 and 13, and further in view of well known prior art (MPEP 2144.03).

As per **claim 9** (depending on claim 1), as best understood in view of the rejection under 35USC 112 2<sup>nd</sup> (see above), Lakritz in view of Wang further discloses a “order for the display of the next drawn candidate is based on the previous selection” (Lakritz: col. 3, lines 30-34, ‘sequence of strokes’ ‘stroke sequences based on the correct writing of ideograph’; col. 6, lines 33-36, ‘additional radical...narrow the number of matches displayed in the selection window’). But, Lakritz in view of Wang and Freeman does not expressly disclose “the order for the display of component candidates is based on the cumulative frequencies of all possible Chinese characters”. However, an official notice is taken that this feature of providing ordered component candidates based on cumulative or total frequencies of possible Chinese character is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to modify Lakritz in view of Wang by specifically providing ordered component candidates based on cumulative or total frequencies of possible Chinese character, for the purpose (motivation) of offering additional criteria used for ordering hypotheses list (Wang: col. 23, lines 6-7).

As per **claim 10** (depending on claim 9), the rejection is based on the same reason described for claim 9, because the rejection for claim 9 covers the same or similar limitation(s) as claim 10, wherein cumulative frequencies is necessarily altered after entering (operation) a stroke or radical.

Art Unit: 2654

As per **claims 19-20** (depending on claim 13), the rejection is based on the same reason described for claims 9-10 respectively, because the claims recite the same or similar limitation(s) as claims 9-10 respectively.

***Conclusion***

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Effective January 14, 2005, except correspondence for Maintenance Fee payments, Deposit Account Replenishments (see 1.25(c)(4)), and Licensing and Review (see 37 CFR 5.1(c) and 5.2(c)), please address correspondence to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, etc.) as follows:

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qi Han whose telephone numbers is (571) 272-7604. The examiner can normally be reached on Monday through Thursday from 9:00 a.m. to 7:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (571) 272-7602.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: [ebc@uspto.gov](mailto:ebc@uspto.gov). For general information about the PAIR system, see <http://pair-direct.uspto.gov>.

QH/qh  
October 11, 2005

  
**RICHEMOND DORVIL**  
**SUPERVISOR EXAMINER**